

AMENDMENTS TO THE CLAIMS

Claims 1-7 (Cancelled)

8. (Previously Presented) An embedded centrifugal cooling device, comprising:

a centrifugal fan including a rotary shaft and a plurality of blades; and

a heat sink, including a plurality of first cooling fins and a plurality of second cooling fins, wherein an annular cavity is defined between the first cooling fins and the second cooling fins, and the second cooling fins include a lower portion;

wherein the blades are located in the cavity, and there is a distance between the rotary shaft and the second cooling fins so that the entire rotary shaft is located above the lower portion of the second cooling fins, and the rotary shaft is positioned away from the lower portion of the second cooling fins.

9. (Original) The embedded centrifugal cooling device according to claim 8, further comprises a cover formed on said heat sink and said centrifugal fan.

10. (Currently Amended) The embedded centrifugal cooling device according to ~~claim~~ 8, claim 9, wherein said cover serves an air seal to keep airtight.

11. (Previously Presented) The embedded centrifugal cooling device according to claim 8, wherein said annular cavity matches said centrifugal fan.

12. (Previously Presented) The embedded centrifugal cooling device according to claim 8, wherein said cooling fins are distributed under and around a region extending from a central region of said centrifugal fan to a periphery of said centrifugal fan.

13. (Original) The embedded centrifugal cooling device according to claim 8, wherein said heat sink is made of a material chosen from the group consisting of aluminum, aluminum alloy, copper, copper alloy and the combination thereof.

14. (Previously Presented) An embedded centrifugal cooling device, comprising:

a heat sink, including a plurality of first cooling fins and a plurality of second cooling fins, wherein a cavity is defined between the first cooling fins and the second cooling fins, and the second cooling fins include a lower portion;

a cover connected to the heat sink and having corners directly contacted to the first cooling fins; and

a centrifugal fan including a rotary shaft and a plurality of blades, wherein the blades are located in the cavity, the entire rotary shaft is located above the lower portion of the second cooling fins, and the rotary shaft is positioned toward the cover to be away from the lower portion of the second cooling fins.

15. (Original) The embedded centrifugal cooling device according to claim 14, wherein said cover serves as an air seal to keep airtight.

16. (Original) The embedded centrifugal cooling device according to claim 14, wherein said cavity matches said centrifugal fan.

17. (Currently Amended) The embedded centrifugal cooling device according to claim 14, wherein said cooling fins are distributed under and around a region extending ~~from~~ from a central region of said centrifugal fan to a periphery of said centrifugal fan.

18. (Original) The embedded centrifugal cooling device according to claim 14, wherein said heat sink is made of a material chosen from the group consisting of aluminum, aluminum alloy, copper, copper alloy and the combination thereof.

19. (Previously Presented) An embedded centrifugal cooling device, comprising:

a heat sink, including a plurality of first cooling fins and a plurality of second cooling fins, wherein a cavity is defined between the first cooling fins and the second cooling fins, and the second cooling fins include a lower portion;

a centrifugal fan having an axial direction and radial directions and including a rotary shaft and a plurality of blades, wherein the blades are located in the cavity, and there is a distance between the rotary shaft and the second cooling fins so that the entire rotary shaft is located above the lower portion of the second cooling fins, and the rotary shaft is positioned away from the lower portion of the second cooling fins; and

a cover, including a plurality of inlets, disposed on said heat sink and said centrifugal fan, wherein air from ambient is flowed in the axial direction of the centrifugal fan into the heat sink from the inlets of the cover, and is flowed in the radial directions of the centrifugal fan out of the heat sink.

20. (Previously Presented) The embedded centrifugal cooling device according to claim 19, wherein said cover serves as an air seal to keep airtight.

21. (Previously Presented) The embedded centrifugal cooling device according to claim 19, wherein said cavity matches said centrifugal fan.

22. (Previously Presented) The embedded centrifugal cooling device according to claim 19, wherein said cooling fins are distributed under and around a region extending from a central region of said centrifugal fan to a periphery of said centrifugal fan.

23. (Previously Presented) The embedded centrifugal cooling device according to claim 19, wherein said heat sink is made of a material chosen from the group consisting of aluminum, aluminum alloy, copper, copper alloy and the combination thereof.

24. (Currently Amended) An embedded centrifugal cooling device, comprising:

a heat sink, including a plurality of cooling fins and a cavity defined between the cooling fins; and

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a centrifugal fan including a hub, a rotary shaft and a plurality of blades located in the cavity, wherein there is a distance between the rotary shaft and ~~the~~ a lower portion of the cooling fins so that the rotary shaft is positioned away from a lower portion of the heat sink.